

AMENDMENTS TO THE DRAWINGS:

On page 2 of the Office Action the Examiner objected to the drawings, stating that Figure 1 should be designated by a legend identifying the drawing as prior art. The attached drawing includes this change to Figure 1. The sheet containing Figure 1 replaces the original sheet including Figure 1. In Figure 1, a label has been added to identify the drawing as prior art.

REMARKS

In the Office Action the Examiner noted that claims 1-25 are pending in the application, and the Examiner rejected all claims. By this Amendment, claims 8 and 14 have been amended. No new matter has been presented. The Examiner's rejections are traversed below, and reconsideration of all rejected claims is respectfully requested.

Objection to the Drawings

On page 2 of the Office Action the Examiner objected to the drawings, stating that Figure 1 should be designated by a legend identifying the drawing as prior art. By this amendment, a label has been added to Figure 1 to identify the drawing as prior art. Therefore, the Applicants respectfully request the withdrawal of the Examiner's objection to the drawings.

Claim Rejections Under §112

On pages 2-3 of the Office Action, the Examiner rejected claims 8, 10, 14, 20, and 25 under 35 U.S.C. §112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which the Applicants regard as the invention. The Applicants respectfully traverse these rejections.

Regarding claims 8 and 14, the Examiner states that the claims discuss "a specific direction by the flow guide," but give no details in the specification as to what the direction is or how to find the claimed specific direction. By this Amendment, claims 8 and 14 have been amended to recite that the air discharged from the turbofan is discharged therefrom in a radial direction by the flow guide. This is supported by at least paragraph [0023] of the specification. Therefore, the Applicants respectfully request the withdrawal of the Examiner's §112 rejection of these claims.

Regarding claims 10 and 25, the Examiner states that these claims contain the language "predetermined angle" to describe the orientation of the rim, but the specification contains no discussion of how to calculate that predetermined angle. The Applicants respectfully submit that it is not necessary for the specification to discuss how to calculate a precise predetermined angle of the flow guide rib, but rather that it would be evident to one of ordinary skill in the art that the angle is to be predetermined according to the desired airflow away from the turbo fan. MPEP 2173.02 states, "In reviewing a claim for compliance with 35 U.S.C. 112, second

paragraph, the examiner must consider the claim as a whole to determine whether the claim apprises one of ordinary skill in the art of its scope.” Therefore, the Applicants respectfully request the withdrawal of the Examiner’s §112 rejection of claims 10 and 25.

Regarding claim 20, the Examiner states that the claim contains the language “predetermined gap” to describe the distance between the casing and the rotation plate, but the specification contains no discussion of how to calculate that predetermined gap. As discussed in regard to claims 10 and 25, and according to MPEP 2173.02, the claim must apprise one of ordinary skill in the art of its scope. The Applicants submit that the distance between the casing and the rotating plate would be easily understood by one of ordinary skill in the art to be adjustable according to the percentage of the discharged air desired to cool the drive motor rather than being discharged over the recited heat exchanger. Therefore, the Applicants respectfully request the withdrawal of the Examiner’s §112 rejection of claim 20.

Claim Rejections Under 35 USC §103

On pages 3-9 of the Office Action the Examiner rejected claims 1-25 under 35 U.S.C. §103(a) as being unpatentable over the Applicants’ admitted prior art (figure 1) in view of U.S. Patent No. 6,604,906, issued to Ozeki et al. (hereinafter referred to as “Ozeki”). The Applicants respectfully traverse these rejections.

Claim 1 of the present application recites “a flow guide rib extending from a peripheral edge of the rotating plate in a rearward direction to guide air discharged from the turbofan.” Therefore, the flow guide rib is provided along the peripheral edge of the rotating plate. The Applicants respectfully submit that at least this feature is not disclosed by either of the cited references.

The Examiner admits that the Applicants’ admitted prior art does not disclose a flow guide rib extending from a peripheral edge of the rotating plate in a rearward direction to guide air discharged from the turbofan, but goes on to state that Ozeki discloses “a flow guide rib (21) extending from a peripheral edge of the rotating plate in a rearward direction to guide air discharged from the turbofan for the purpose of counter flow prevention means (col. 2 lines 32-35).” However, it is apparent from at least Figures 2 and 5 of Ozeki that the second fan rib 21, which the Examiner has characterized as a flow guide rib, does not extend from the peripheral edge of the conical plate portion 2b, which the Examiner has characterized as the rotating plate. The second fan rib 21 is actually offset from the peripheral edge, leaving a considerable distance between the second fan rib 21 and the peripheral edge of the conical plate portion 2b.

In fact, it is apparent from the drawings that the second fan rib 21 is located at a location that is closer to the fan motor than the second case rib 22, which is itself also located further inward than the peripheral edge of the conical plate portion 2b, and is actually located near the inner circumference of the blades 2a of the multiblade fan 2. Therefore, in contrast with claim 1 of the present application, neither of the cited references discloses "a flow guide rib extending from a peripheral edge of the rotating plate in a rearward direction to guide air discharged from the turbofan."

Also, the Applicants further respectfully submit that there is no motivation to combine the two cited references, due to the fact that the second fan rib 2b of Ozeki is located far inward from the peripheral edge of the conical plate portion 2b. Because of the placement of this second fan rib 2b, additional turbulence is created at the peripheral edge of the conical plate portion 2b, and therefore Ozeki would actually teach away from the combination of the cited references to reduce air turbulence.

For a proper §103 rejection, the cited references must combine to teach all of the elements of the rejected claim. Neither the Applicants' admitted prior art nor Ozeki, either alone or in combination, disclose at least the feature of "a flow guide rib extending from a peripheral edge of the rotating plate in a rearward direction to guide air discharged from the turbofan." Therefore, the Applicants respectfully submit that claim 1 of the present application patentably distinguishes over the cited references, and further respectfully request the withdrawal of the Examiner's §103 rejection.

Claim 2 of the present application also recites "a flow guide rib extending from a peripheral edge of the rotating plate in a rearward direction to guide air discharged from the turbofan." Therefore, for the reasons discussed in relation to claim 1 of the present application, the Applicants respectfully submit that claim 2 also patentably distinguishes over the cited references.

Regarding claim 3, the Examiner states that the Applicants have not disclosed any particular purpose for "a flow guide rib extending from a peripheral edge of the rotating plate in rearward and outward directions to guide air discharged from the turbofan," and that it would have been an obvious matter of design to further modify the rotating plate of the Applicants' admitted prior art to have both the rearwardly and outwardly directed flow guide rib for the purposes of directing air at a particular angle from the fan.

The Applicants respectfully submit that it would not have been obvious to modify the turbo fan of the Applicants' admitted prior art (AAPA) as discussed by the Examiner. In the

AAPA, the rotating plate does not have a flow guide extending from the peripheral edge so that the air flow may return through the path A shown in Figure 1 to cool the drive motor 5. To set forth a prima facie §103 rejection, there must be some evidenced reason for modifying a reference. Specifically, there must be evidence, outside of the present application, which motivates, leads, or suggests to one of ordinary skill to modify a reference (MPEP 2141). As previously discussed, AAPA allows for a cooling path A, which begins at the peripheral edge of the rotating plate, to cool the drive motor 5. In contrast, the present invention provides a flow guide that prevents a portion of the air discharged from the turbo fan from entering a cooling path. The Examiner states that AAPA would perform equally well with directing air at a particular angle from the fan as claimed by the Applicants, but it is apparent that the cooling path A of AAPA would have a reduced air flow through the cooling path, and therefore would not perform equally as well in the purpose for which AAPA is configured. Thus, AAPA teaches away from claim 3 of the present application. Therefore, it is respectfully submitted that claim 3 patentably distinguishes over AAPA and Ozeki, and withdrawal of the Examiner's §103 rejection is respectfully requested.

Claim 4 of the present application also recites "a flow guide rib extending from a peripheral edge of the rotating plate in rearward and outward directions to guide the air discharged from the turbofan." Therefore, for the reasons discussed in relation to claim 3 of the present application, the Applicants respectfully submit that claim 4 also patentably distinguishes over the cited references.

Claim 5 of the present application recites "a flow guide rib extending extending in a rearward direction from a peripheral edge of the rotating plate toward an inner surface of the case body to guide air discharged from the turbofan." Therefore, for similar reasons as discussed in relation to claim 1 of the present application, the Applicants respectfully submit that claim 5 also patentably distinguishes over the cited references.

Claim 6 of the present application also recites "a flow guide rib extending from a peripheral edge of the rotating plate in rearward and outward directions to guide the air discharged from the turbofan." Therefore, for the reasons discussed in relation to claim 3 of the present application, the Applicants respectfully submit that claim 6 also patentably distinguishes over the cited references.

Claims 7, 12, and 13 each recite "a flow guide rib extending from a peripheral edge of the rotating plate in one of an axial direction and of axial and radial directions to guide air discharged from the turbofan." As discussed above in relation to claims 1 and 3, neither of the cited

references, either alone or in combination, disclose at least this feature. Therefore, the Applicants respectfully submit that claims 7, 12, and 13 patentably distinguish over the cited references, and further respectfully request the withdrawal of the Examiner's §103 rejections.

Claims 8-11 and 14-25 depend from independent claims 7 and 13, respectively, and include all of the features of those claims plus additional features which are not taught or suggested by the cited references. Therefore, it is respectfully submitted that claims 8-11 and 14-25 also patentably distinguish over the cited references.

Summary

In accordance with the foregoing, Figure 1 and claims 8 and 14 have been amended. No new matter has been presented. Claims 1-25 are pending and under consideration.

There being no further outstanding objections or rejections, it is respectfully submitted that the application is in condition for allowance. An early action to that effect is courteously solicited.

Finally, if there are any formal matters remaining after this response, the Examiner is requested to telephone the undersigned to attend to these matters.

If there are any additional fees associated with filing of this Amendment, please charge the same to our Deposit Account No. 19-3935.

Respectfully submitted,

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12/23/05

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